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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/755,293	01/13/2004	Shiho Izumi	056207.53157US	1335

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EXAMINER	
WONG, ALLEN C	

ART UNIT	PAPER NUMBER
2621	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/755,293	IZUMI ET AL.	
	Examiner	Art Unit	
	Allen Wong	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *See Continuation Sheet*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :1/13/04,1/25/05,11/7/06,7/16/07.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-5, 8-9, 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (5,936,666) and Sugawara (6,140,954) in view of Lyons (6,734,911).

Regarding claim 1, Davis discloses a security system comprising a detection means for detecting intrusions and detecting radiating light or an electric wave to a prescribed area (col.3, ln.60-67, col.4, ln.47-57 and col.5, ln.13-23, in fig.2, Davis discloses a system of using a PIR sensor for detecting intruders that generate heat like light sources (ie. radiation light), humans, animals, etc.), receiving a wave reflected by an object (col.4, ln.47-57 and col.5, ln.13-23, in fig.2, Davis discloses a system of using a PIR sensor for detecting intruders that generate heat like light sources (ie. radiation light); and col.5, ln.61 to col.6, ln.11, where element 26 encompasses all of the aspects of the PIR); and imaging means for picking up image information of the prescribed area

(col.3, ln.60-67, fig.2 element 10 is the imaging means, and fig.5, element 26 is the imaging means that encompasses all of the aspects of the PIR as stated in col.5, ln.61 to col.6, ln.11).

Davis does not specifically obtaining at least the relative speed and location of said object. However, Sugawara teaches the use of a radar device for obtaining at least relative speeds and distances of objects (col.7, 23-26, and col.8, ln.37-62, Sugawara discloses that in fig.3 and 4, the relative speeds, distance and bearing of the objects can be calculated). Since the bearing, speed and distance of the object are calculated, it would have been obvious to one of ordinary skill in the art to combine the teachings of Davis and Sugawara, as a whole, for calculating the location of the object from the data obtained so as to locate the object and react to the situation at hand as quickly as possible.

Davis and Sugawara do not specifically disclose tracking and a moving means for changing the imaging direction of said imaging means, wherein said moving means is controlled according to the relative speed and location of said object so as to direct the imaging direction of said imaging means toward said object. However, Lyons teaches the use of a camera that can track a moving object according to the tracking system (col.3, ln.20-40; the camera is movable to aim at the desired subject pr object based on the drive signals generated by tracking system). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Davis, Sugawara and Lyons, as a whole, for permitting the tracking of the objects or intruders in a monitored scene so as to accurately, efficiently identify and resolve intrusion alerts.

Regarding claim 2, Davis does not specifically disclose wherein said detection means transmits an electric wave from one transmission antenna and receives the signal by two receiving antennas to detect the azimuth of the target. However, Sugawara teaches the use of a CW Radar unit for detecting the bearing or azimuth of the target (col.9, ln.60 to col.10, ln.29, in fig.3, the bearing or the azimuth of the object is outputted by target part 15). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Davis and Sugawara, as a whole, for calculating the location of the object from the data obtained so as to locate the object and react to the intrusion situation at hand as quickly as possible.

Regarding claim 3, Davis does not specifically disclose wherein said detection means is a 2-frequency CW type millimeter wave radar. However, Sugawara discloses the use of a CW type wave radar (col.7, ln.23-26 and ln.38-53, and fig.3, element 2). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Davis and Sugawara, as a whole, for calculating the location of the object from the data obtained so as to locate the object and react to the situation at hand as quickly as possible.

Regarding claim 4, Davis discloses the imaging means is a camera (fig.5, element 26 is the imaging means that encompasses all of the aspects of the PIR as stated in col.5, ln.61 to col.6, ln.11).

Regarding claim 5, Davis and Sugawara do not specifically disclose wherein said imaging means has a zoom means for enlarging or reducing the size of the image information according to the relative speed and location of said object. However,

Lyons teaches the zooming of a image (col.8, ln.5-10 and fig.12, note the use of zoom-in and zoom-out). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Davis, Sugawara and Lyons, as a whole, for permitting the tracking of the objects or intruders in a monitored scene so as to accurately, efficiently identify and resolve intrusion alerts.

Regarding claim 8, Davis does not specifically disclose further comprising a recording means for recording at least the relative speed and location of said object detected by said detection means or image information captured by said imaging means. However, Sugawara discloses a radar signal processing part that calculates the distance, bearing, relative speed of the object (fig.3, note that the distance, bearing, relative speed of the object are calculated and must be stored somewhere within radar signal processing element 3 otherwise, the data obtained would be lost without some form of storage or recording means). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Davis and Sugawara, as a whole, for calculating the location of the object from the data obtained so as to locate the object and react to the intrusion situation at hand as quickly as possible.

Regarding claim 9, Davis discloses a transmission means for transmitting an output of said detection means (fig.5, note the video output signal 36 must have a display or video output device for viewing the image obtained). Davis and Sugawara do not specifically disclose wherein at least the relative speed and location of said object detected by said detection means or image information captured by said imaging means is transmitted. However, Lyons discloses a computer image processing section

for transmitting the data to a computer monitor (col.5, ln.53-59; since images are produced for viewing, in fig.1, note that element 222 is a computer in that a computer must have a monitor for viewing the obtained data). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Davis, Sugawara and Lyons, as a whole, for permitting the tracking of the objects or intruders in a monitored scene so as to accurately, efficiently identify and resolve intrusion alerts.

Regarding claim 11, Davis discloses a receiving means for receiving information transmitted by the transmission means (fig.5, note the video output signal 36 must have a display or video output device for viewing the image obtained, thus, Davis discloses the output means of the image obtained by camera or receiving image information), and an information display means for displaying information received by the receiving means (fig.5, note the video output signal 36 must have a display or video output device for viewing the image obtained, thus, Davis discloses the output means of the image obtained by camera or receiving image information).

Regarding claim 12, Davis discloses a security system comprising a detection means for detecting intrusions and detecting radiating light or an electric wave to a prescribed area (col.3, ln.60-67, col.4, ln.47-57 and col.5, ln.13-23, in fig.2, Davis discloses a system of using a PIR sensor for detecting intruders that generate heat like light sources (ie. radiation light), humans, animals, etc.), receiving a wave reflected by an object (col.4, ln.47-57 and col.5, ln.13-23, in fig.2, Davis discloses a system of using a PIR sensor for detecting intruders that generate heat like light sources (ie. radiation light); and col.5, ln.61 to col.6, ln.11, where element 26 encompasses all of the aspects

of the PIR); and imaging means for picking up image information of the prescribed area (col.3, ln.60-67, fig.2 element 10 is the imaging means, and fig.5, element 26 is the imaging means that encompasses all of the aspects of the PIR as stated in col.5, ln.61 to col.6, ln.11). Davis discloses a transmission means for transmitting an output of said detection means and/or an output of said imaging means (fig.5, note the video output signal 36 must have a display or video output device for viewing the image obtained, thus, Davis discloses the output means of the image obtained by camera or receiving image information). Davis discloses a receiving means for receiving information transmitted by said transmission means (fig.5, note the video output signal 36 must have a display or video output device for viewing the image obtained, thus, Davis discloses the output means of the image obtained by camera or receiving image information). Davis discloses a display means for displaying received information so that an operator can see it (fig.5, note the video output signal 36 must have a display or video output device for viewing the image obtained, thus, Davis discloses the output means of the image obtained by camera or receiving image information).

Davis does not specifically obtaining at least the relative speed and location of said object. However, Sugawara teaches the use of a radar device for obtaining at least relative speeds and distances of objects (col.7, 23-26, and col.8, ln.37-62, Sugawara discloses that in fig.3 and 4, the relative speeds, distance and bearing of the objects can be calculated). Since the bearing, speed and distance of the object are calculated, it would have been obvious to one of ordinary skill in the art to combine the

teachings of Davis and Sugawara, as a whole, for calculating the location of the object from the data obtained so as to locate the object and react to the situation at hand as quickly as possible.

Davis and Sugawara do not specifically disclose tracking and a moving means for changing the imaging direction of said imaging means, wherein said moving means is controlled according to the relative speed and location of said object so as to direct the imaging direction of said imaging means toward said object. However, Lyons teaches the use of a camera that can track a moving object according to the tracking system (col.3, ln.20-40; the camera is movable to aim at the desired subject pr object based on the drive signals generated by tracking system). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Davis, Sugawara and Lyons, as a whole, for permitting the tracking of the objects or intruders in a monitored scene so as to accurately, efficiently identify and resolve intrusion alerts.

4. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (5,936,666), Sugawara (6,140,954) and Lyons (6,734,911) in view of Hart (5,473,368).

Regarding claim 6, Davis, Sugawara and Lyons do not specifically disclose a lighting means for radiating light or an electric wave to the prescribed area and a means for changing the radiation direction of said lighting means, wherein light or an electric wave is radiated according to the location of said object to pick up an image of said object. However, Hart teaches that illumination of the intruder or object is done to

pickup the image of the intruder or object and that the lighting means would be moved to aim towards the intruder (col.8, ln.57 to col.9, ln.1 and col.12, ln.18-24; note lighting means is on movable platform with camera to movably aim towards intruders). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Davis, Sugawara, Lyons and Hart, as a whole, for providing an accurate, efficient surveillance device for detecting intruders in a quick manner (col.4, ln.26-37).

Regarding claim 7, Davis, Sugawara and Lyons do not specifically disclose wherein said lighting means can change output according to the location of said object. However, Hart teaches that illumination of the intruder or object is done to pickup the image of the intruder or object and that the lighting means would be moved to aim towards the intruder (col.8, ln.57 to col.9, ln.1 and col.12, ln.18-24; note lighting means is on movable platform with camera to movably aim towards intruders, thus affecting the output according to the location of the object). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Davis, Sugawara, Lyons and Hart, as a whole, for providing an accurate, efficient surveillance device for detecting intruders in a quick manner (col.4, ln.26-37).

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (5,936,666), Sugawara (6,140,954) and Lyons (6,734,911) in view of Sugimoto (4,849,635).

Regarding claim 10, Davis discloses a means for processing image information (fig.5, elements 32 and 34 are image processing unit). Sugawara discloses a radar

signal processing part that calculates the distance, bearing, relative speed of the object (fig.3, note that the distance, bearing, relative speed of the object are calculated and that since the bearing, speed and distance of the object are calculated, it would have been obvious to one of ordinary skill in the art to calculate the location of the object from the data obtained so as to locate the object and react to the situation at hand as quickly as possible). Lyons discloses the image processing unit (fig.1, element 222). Davis, Sugawara and Lyons do not specifically disclose determining whether said object detected by said detection means is a person or not. However, Sugimoto discloses that the radiation of a person is distinguishable from the radiation of an animal (col.3, ln.35-47, since the heat data from people and animals are distinguishable, thus, the determination of whether the object is a person or not can be done). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Davis, Sugawara, Lyons and Sugimoto, as a whole, for being clearly able to distinguish between intruders and pet animals so as to avoid false alarms and accurately alert intruders (Sugimoto col.2, ln.34-39).

Davis and Sugawara do not specifically disclose a transmission means for transmitting an output of said detection means, wherein at least the relative speed and location of said object detected by said detection means or image information captured by said imaging means is transmitted. However, Lyons discloses a computer image processing section for transmitting the data to a computer monitor (col.5, ln.53-59; since images are produced for viewing, in fig.1, note that element 222 is a computer in that a computer must have a monitor for viewing the obtained data). Therefore, it

would have been obvious to one of ordinary skill in the art to combine the teachings of Davis, Sugawara and Lyons, as a whole, for permitting the tracking of the objects or intruders in a monitored scene so as to accurately, efficiently identify and resolve intrusion alerts.

6. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (5,936,666),Sugawara (6,140,954) and Lyons (6,734,911) in view of Saylor (6,400,265).

Regarding claims 13-14, Davis, Sugawara and Lyons do not specifically disclose further comprising an annunciation means for notifying an operator that said receiving means has received information, and wherein said annunciation means notifies the operator of the receipt of said information by means of sound. However, Saylor teaches the annunciation means for notifying the operator of the received data of the intrusion alert (col.6, ln.35-55; Saylor discloses the alarm is of sound notification means, and that certain parameters can be adjusted based on alarm situations, along with other variations). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Davis, Sugawara, Lyons and Saylor, as a whole, for notifying the alarm situation of the detected intruder in a quick and accurate manner.

7. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (5,936,666), Sugawara (6,140,954), Lyons (6,734,911) and Saylor (6,400,265) in view of Sugimoto (4,849,635).

Regarding claims 15-16, Davis discloses a display means for displaying received

information so that an operator can see it (fig.5, note the video output signal 36 must have a display or video output device for viewing the image obtained, thus, Davis discloses the output means of the image obtained by camera or receiving image information). Davis, Sugawara, Lyons and Saylor do not specifically disclose determining whether said object detected by said detection means is a person or not. However, Sugimoto discloses that the radiation of a person is distinguishable from the radiation of an animal (col.3, ln.35-47, since the heat data from people and animals are distinguishable, thus, the determination of whether the object is a person or not can be done). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Davis, Sugawara, Lyons and Sugimoto, as a whole, for being clearly able to distinguish between intruders and pet animals so as to avoid false alarms and accurately alert intruders (Sugimoto col.2, ln.34-39).

Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (5,936,666) in view of Sugawara (6,140,954),

Regarding claim 17, Davis discloses a security system comprising a detection means for detecting intrusions and detecting radiating light or an electric wave to a prescribed area (col.3, ln.60-67, col.4, ln.47-57 and col.5, ln.13-23, in fig.2, Davis discloses a system of using a PIR sensor for detecting intruders that generate heat like light sources (ie. radiation light), humans, animals, etc.), receiving a wave reflected by an object (col.4, ln.47-57 and col.5, ln.13-23, in fig.2, Davis discloses a system of using a PIR sensor for detecting intruders that generate heat like light sources (ie. radiation

light); and col.5, ln.61 to col.6, ln.11, where element 26 encompasses all of the aspects of the PIR); wherein the beam width of the radar device is 10 degrees or more (col.6, ln.1-4).

Davis does not specifically obtaining at least the relative speed and location of said object. However, Sugawara teaches the use of a radar device for obtaining at least relative speeds and distances of objects (col.7, 23-26, and col.8, ln.37-62, Sugawara discloses that in fig.3 and 4, the relative speeds, distance and bearing of the objects can be calculated). Since the bearing, speed and distance of the object are calculated, it would have been obvious to one of ordinary skill in the art to combine the teachings of Davis and Sugawara, as a whole, for calculating the location of the object from the data obtained so as to locate the object and react to the situation at hand as quickly as possible.

Although Davis and Sugawara do not specifically disclose the security system is installed outside the building, however, it would have been obvious to one of ordinary skill in the art to install the security system anywhere that is deemed necessary for monitoring the building outside if needed to accurately, efficiently ascertain any intruders on the premises.

Regarding claim18, Davis does not specifically disclose a radar device for a security system, wherein the location of said object is detected by one transmission antenna transmitting an electric wave and two receiving antennas receiving the signal. However, Sugawara teaches the use of a CW Radar unit for detecting the bearing or location of the target (col.9, ln.60 to col.10, ln.29, in fig.3, the bearing or the location of

the object is outputted by target part 15). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Davis and Sugawara, as a whole, for calculating the location of the object from the data obtained so as to locate the object and react to the intrusion situation at hand as quickly as possible.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (571) 272-7341. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm Flextime.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on (571) 272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Allen Wong
Primary Examiner
Art Unit 2621

AW
12/26/07